

HIGH-THROUGHPUT ANALYSIS OF SPATIALLY RESOLVED RNA & PROTEIN

GET MORE INFORMATION FROM ONE SLIDE

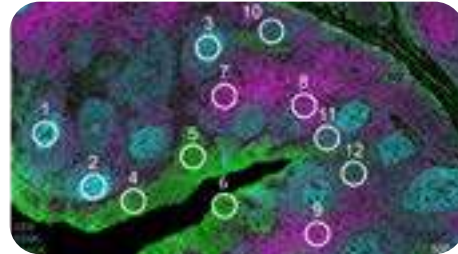
Understanding tissue heterogeneity is critical to answering key biological questions in translational research. The BOND RX and NanoString GeoMx Digital Spatial Profiler (DSP) workflow brings tissue morphological context and High Plex protein or gene expression profiling - all from a single slide sample.

The GeoMx™ DSP combines standard immunofluorescence techniques with digital optical barcoding technology to perform highly multiplexed, spatially resolved profiling studies.

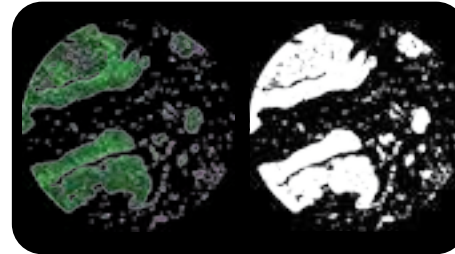
AUTOMATED HIGH PLEX PROFILING

- » Select region to profile by morphology, phenotype, or by individual cell populations
- » Generate whole tissue, 4-color images for profiling
- » Spatially profile over 100 proteins or the whole transcriptome for RNA
- » High-throughput and reproducibility
- » Reduce hand-on time for GeoMx RNA assay to 30 minutes

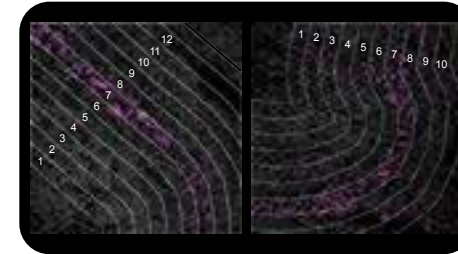
LOCATE YOUR REGIONS OF INTEREST



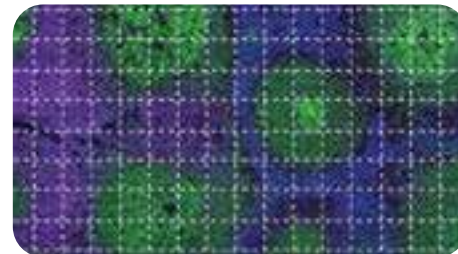
Geometric Profiling:
Profile with any geometric shape to characterize distinct tissue regions



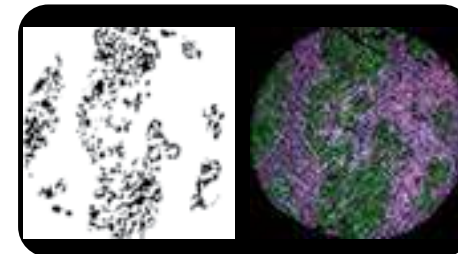
Segment Profiling: Identify and profile distinct biological compartments within a region of interest (ROI)



Contour Profiling:
Evaluate how proximity affects biology



Gridded Profiling:
Perform rigorous spatial mapping using a tunable gridding pattern



Cell Type Specific:
Reveal the function of cell populations guided by cell type specific morphology markers

BOND RX FREEDOM TO DISCOVER

The BOND RX fully automated research stainer from Leica Biosystems provides superior quality and flexibility while enabling the automation of IHC, ISH, and emerging tests.

FLEXIBLE MODULAR DESIGN THAT FITS A RANGE OF APPLICATIONS AND PLEX NEEDS

The NanoString GeoMx RNA and Protein assays are released on the BOND RX and BOND RX™ and their modular nature provides flexibility and supports a range of research needs.

The BOND research systems complement the DSP technology by reducing hands-on time to process Formalin-Fixed Paraffin-Embedded (FFPE), Fixed Frozen or Fresh Frozen samples.

BOND RX and GeoMx DSP Workflow

1 STAIN SLIDE



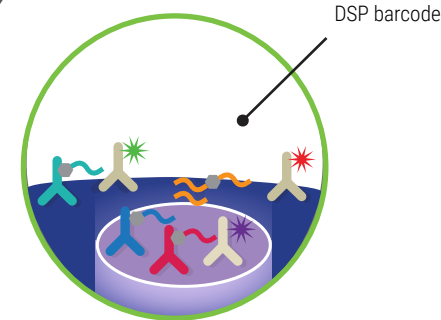
Stain targeted areas with fluorescent antibodies for ROI selection and oligo-tagged antibodies or ISH probes for spatial profiling.

2 SELECT ROI



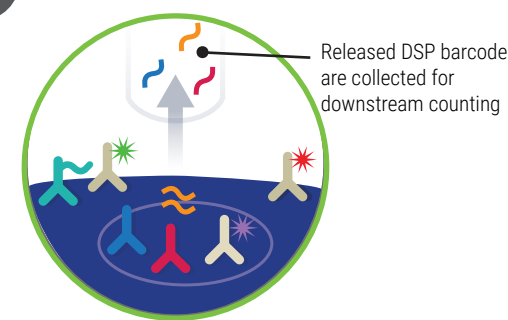
The intuitive GeoMx DSP interface allows users to select regions of interest of virtually any shape or size.

3 ILLUMINATE ROI



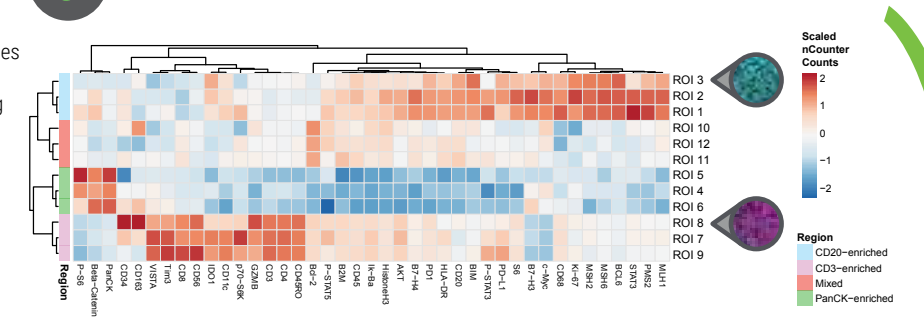
Every region of interest is sequentially exposed to UV light to decouple the DSP barcodes from the profiling reagents.

4 ASPIRATE OLIGOS



Decoupled DSP barcodes are rapidly aspirated using a microcapillary without touching the sample, thereby leaving the sample unaltered.

5 COUNT BARCODES



The DSP barcodes are hybridized to NanoString barcodes and quantified on the nCounter® platform or sequenced on a next generation sequencer.